Planning for the future

2024–29 Regulatory Proposal Customer Overview

January 2023

Our Vision, Purpose & Values

empowering **you**

Our Vision
What we want to be
Empowering communities to share and use energy for a better tomorrow.

Our Purpose
What we stand for
To enable energy solutions that improve life.

Our Values
What we care about

- Make safety your own
- Be easy to do business with
- Make every dollar count
- Be courageous, Shape the future
- Be inclusive, supportive and honest

Acknowledgement of Country

Our depots and offices across regional New South Wales (NSW) are located on the country of 29 First Nations – from Wiljakali Country on the plains of Far West NSW to Ngarigo Country in the high Snowy Mountains and Bundjalung Country on the subtropical North Coast of NSW, and more First Nations across the diverse landscape that is regional, rural and remote NSW and parts of southern Queensland.

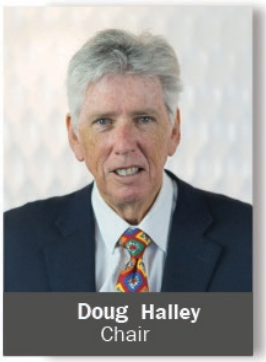
We acknowledge the Traditional Custodians of the lands on which our network is located and where we conduct our business, and we acknowledge all Aboriginal and Torres Strait Islander peoples across Australia. We pay our respects to ancestors and Elders, past, present and emerging. We are committed to honouring Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.

95% of NSW, 100 locations, 29 First Nations

This map identifies the 29 First Nations on which our 100 offices and depots sit. As Aboriginal Country borders fluctuate and more knowledge is being found every day, this map is subject to change. Spellings of Aboriginal countries and locations of depots and offices within Aboriginal countries have been made from desktop research conducted on each site (town and city) and correlation with the AIATSIS map of Indigenous Australia by David R Horton (creator), © Aboriginal Studies Press, AIATSIS, and Auslig/Sinclair, Knight, Merz, 1996. This is an estimate only based on desktop research and the AIATSIS map.

Contents

A message from Essential Energy's Chair and Chief Executive Officer



This customer overview summarises our Regulatory Proposal (Proposal) for operating and maintaining NSW's largest electricity distribution network from 1 July 2024 to 30 June 2029 (2024–29), and our related Tariff Structure Statement (TSS). We have developed them in collaboration with customers and stakeholders. These documents outline our proposed business plans for 2024–29, the service levels and outcomes we intend to deliver, the funding we will need to do so, and how we propose to structure your network tariffs (charges).

Listening to you – our customers – is at the heart of everything we do as we work to empower communities to use and share energy to make life better today and tomorrow.

Every five years we submit a Proposal and a TSS to the Australian Energy Regulator (AER), who will review these documents, examine our plans and costs, and decide how much customers network charges will be for the next regulatory period.

To develop this 2024–29 Proposal and TSS, we consulted extensively with you and other stakeholders to determine how best to balance risks, costs and service levels. Our consultations also covered how we should structure our network charges (tariffs) to better reflect the costs of providing two-way network services (consumption and export) to customers, and to help encourage customers to use the network in a more efficient way. This in turn helps promote efficient network investment and operation by us, and results in lowering the long-term average network charges faced by our customers.

You told us you want and need a safe, reliable and affordable network. One that is both resilient and flexible enough to accommodate new and emerging technologies, with pricing structures that keep pace with the changing energy market – particularly the increasing volume of consumer energy resources (CER) connected to and exporting into the network.

We heard you. Your views helped shape this Proposal and TSS – but we're never finished listening. We want our business plans and services to truly reflect what our customers need, want and value.

We invite you to read this information and then provide your feedback to the AER via their website at aer.gov.au or to us directly at:

Email: yoursay@essentialenergy.com.au

Post: Head of Regulatory Affairs
Essential Energy
PO Box 5730
Port Macquarie NSW 2444

Phone: 13 23 91

Web: https://engage.essentialenergy.com.au/hub-page/eeyoursay

Essential Engagement forum: engage.essentialenergy.com.au

Thank you

Doug Halley
Chair

John Cleland
Chief Executive Officer

Fact Sheet 2024-29 Regulatory Proposal
Planning for the future

essential energy
empowering

Delivering on our customers' priorities

Safety

SAFETY LEADER

We actively manage the network to reduce bushfires and manage biosecurity and other hazards

Affordability

	At 30 June 2024	By 30 June 2029	Increase in distribution charges p.a above CPI for 2024-29
Annual distribution charges for a typical residential customer (real $2024)	$803	$930	+2.97%
Annual distribution charges for a typical small business customer (real $2024)	$3,330	$3,855	+2.97%

(based on recent placeholder interest rates)

Reliability and resilience

Maintain reliability under normal conditions

Improve network and community resilience to better withstand extreme events

- **11,000** additional fire proof (composite) poles in high risk areas
- **6** microgrids
- **400** Stand-alone power systems
- **40 km** of high risk powerlines laid underground
- Portable community hub van and depot
- **50** portable solar streetlights
- Generators - **1,000** small, **20** medium, **20** large
- **20** portable Stand-alone power systems
- **3** new staff for resilience work

Good customer service and communication

New customer service metrics	Percentage of unplanned outages with an estimated resolution time	Complaint average resolution time	Customer effort/ease score
Weighting	50%	30%	20%

Future focused

- Improve power quality
- Facilitate greater levels of export and electric vehicles
- Reduce carbon emissions by more than 160,000 tonnes of carbon dioxide equivalent over 2024–29

- Real-time network monitoring
- Up to **100** dynamic assets
- **50** radio sites with batteries and solar panels
- **20** depots upgraded with solar panels
- **850** light vehicles moved to electric
- **104** heavy vehicles moved to electric

Collective benefit

We will make pricing fairer by transitioning to more cost-reflective pricing, including two-way pricing

Transparency and simplicity

New customer relationship management system including a basic one-stop customer portal

A commitment to undertake extensive customer education around smart meters, tariffs and the introduction of two-way prices

About this document

The Regulatory Proposal and Tariff Structure Statement

Essential Energy plays a critical role in providing power across regional NSW and parts of Queensland. We strive to ensure our network is reliable and safe, while making it as efficient as possible to put downward pressure on the price you pay for electricity.

The AER controls the revenue we have to fund our network and operations, primarily by regulating how much we charge customers. To do that, the AER needs to understand the cost of running our network today and how that is likely to change as customer needs and preferences, technology and other factors, such as the climate, evolve.

The Proposal, the TSS, this overview and other documents provide a view of the service levels and outcomes we intend to deliver and funding we will need to do so. It is based on information about our current business, forecasts about the future and comprehensive input from customers and other stakeholders, which we have gathered as part of this process.

This overview explains how we plan to achieve this in the next five years, from 2024–2029. It is based on the full 2024–29 Proposal and related TSS that we have prepared for the AER. We published a Draft Proposal and TSS in September 2022, and feedback received since then has informed the final documents. For our Proposal, the investments are largely consistent with the Draft version apart from some refinements, however, larger price impacts are now flowing through from material changes in inflation and interest rates. In our TSS, the main adjustments are to include two-way pricing for our low-voltage large business customers (given that they are also export contributors) and we have removed the 12-month grace period when a faulty meter is replaced. The balance of this document provides a summarised plain English version of our 2024–29 regulatory submission.

About Essential Energy

Essential Energy builds, operates and maintains one of Australia's largest electricity distribution networks, spanning 95 per cent of NSW and parts of southern Queensland.

Our network covers diverse environments, ranging from subtropical conditions in northern NSW to the alpine environment in the Snowy Mountains and arid climates of western NSW.

Essential Energy is 100 per cent owned by the NSW Government and has an independent board and management team.

1.4M
power poles

163,417 km
of powerlines
in designated
bushfire zones

3,100
employees
approximately

130 apprentices
with 44 appointed
in 2021-22

95%
of NSW and parts of
southern Queensland

183,099 km
of overhead
powerlines

4.75
customers per km of powerline – the lowest customer density in the National Electricity Market

36.8 years
average age of
network assets

596
heavy
vehicles

1,245
light
vehicles

337
radio towers

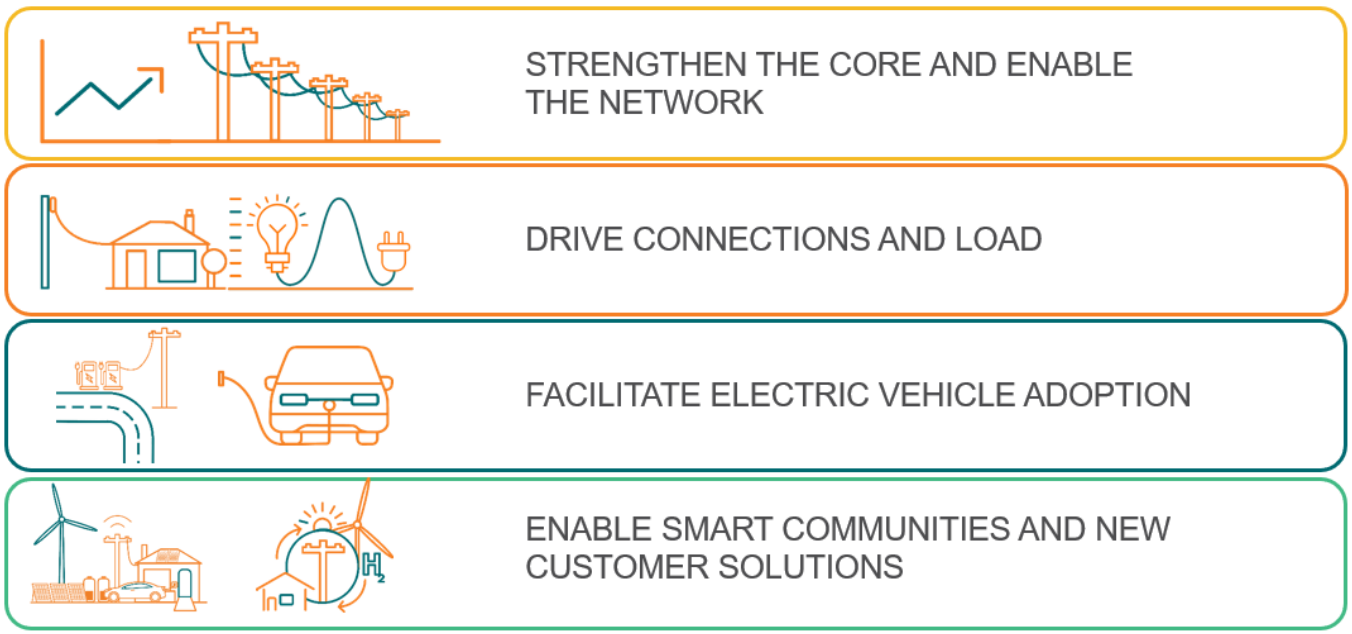
>880,000
electricity customers

96
depots

364
zone substations and
139,303 distribution
substations

Our Strategic Pillars

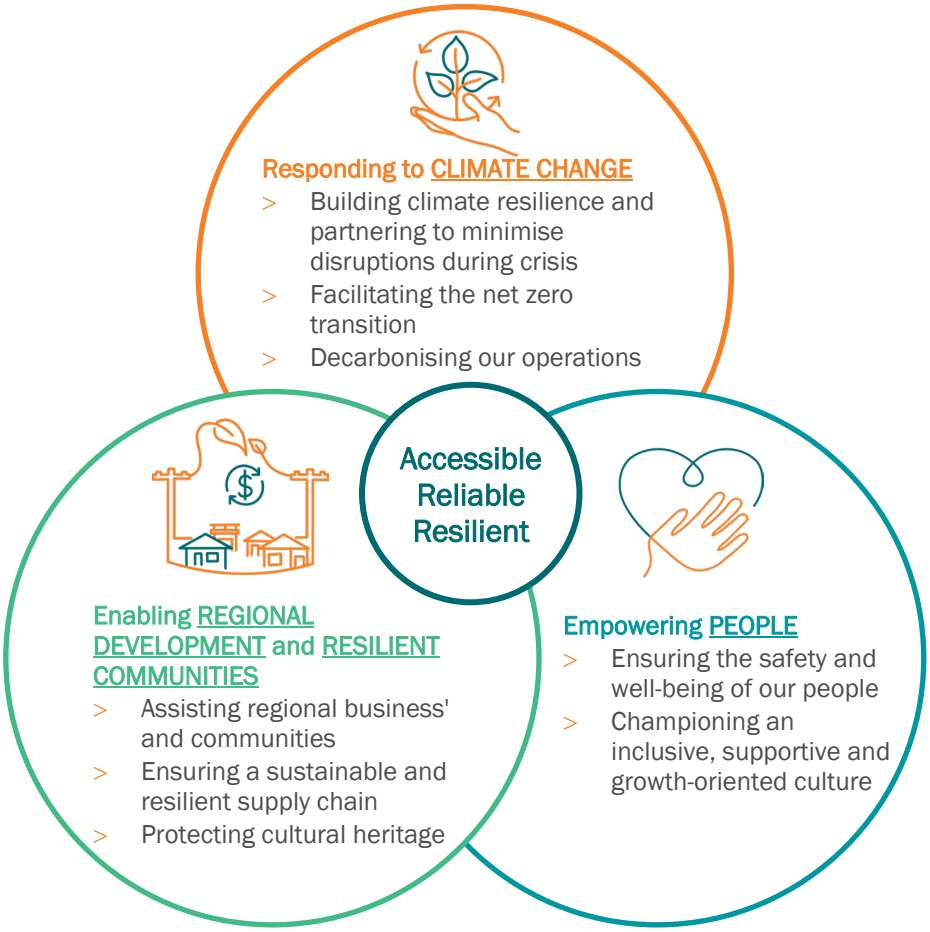
Our Corporate Strategy pillars are the roadmap for how we measure our success over time. They are the outcomes we intend to achieve, though the way we get there might alter over time based on continued customer input and feedback. Adapting for the future requires targeted investment in the network to change our data, systems, processes and technology, and to ensure our people have the capability to deliver sustainable, customer value-driven outcomes.



Our Sustainability Strategy

Our Corporate Strategy contains key sustainability themes – increasing network resilience and reliability, renewable energy uptake and facilitating electric vehicle (EV) adoption.

We have developed a Sustainability Strategy which leverages those themes and builds upon our strong foundation of existing sustainability-related activities. Through commitments and initiatives, we will respond to a broader scope of social, environmental, and economic risks and opportunities.



Investing in our communities

Essential Energy contributes to the communities we serve in many ways. During the 2024 – 2029 regulatory period we plan to grow and build on our existing relationship and extend the reach of our support across regional and rural NSW.

Essential Giving Program

Over $1 million

Donated by Essential Energy and our employees to our partner charities.

Since January 2014

Electricity Safety Week

98%

of primary schools in our network registered for the program.

95,000

students participated.

Essential Communities

250

community groups, stakeholders and charity organisations received support in 2021/22

Giving blood

Throughout FY 2021 Essential Energy employees provided

766

blood donations.

2,298

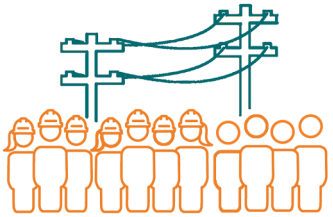
lives saved.

Floods support

In both 2021 and 2022 our customers were impacted by floods. We supported our customers during these tragic events through a range of activities which were tailored depending on the circumstances at the time:

- Engaging Lifeworks to offer a crisis support line for flood-affected customers and community members
- Dedicated flood information web page and social media updates
- Calling all life support customers experiencing outages to check on their welfare
- Offering generators to life support customers without power for longer than 10 days, and $200 fuel cards
- Offering eligible flood-impacted business customers compensation for the reasonable cost of generator hire, fuel, delivery and connection
- Waiving network access charges for the time a premise was impacted by floods
- Pausing estimated meter reading for uninhabitable houses and buildings
- Reimbursing up to $350 of costs to reconnect premises disconnected for safety reasons, where they needed to engage an Accredited Services Providers (ASP)
- Waiving the ASP Certificate Compliance of Electrical Works (CCEW) cost for customers in flood-affected post codes
- Contributing $600 to help flood-affected customers with reimbursement for power supply connection within two years
- Pausing disconnections for non-payment to flood-affected customers
- Pausing private asset defect notifications in flood-affected areas, and repairing or replacing flood-damaged or destroyed private assets on a like for like basis, at our cost
- Providing customer service support, on the ground, face-to-face, throughout the response.

Diversity and Inclusion



51

Aboriginal and Torres Strait Islander people have entered into an apprenticeship or traineeship with Essential Energy since 2017.

Clontarf Foundation and STARS Foundation

Our partnerships aims to provide training and career opportunities for young Aboriginal and Torres Strait Islander men and women.

Aboriginal and Torres Strait Islander Scholarships

4

We partner with regional Universities to provide scholarships each year for Aboriginal and Torres Strait Islander students. We're currently supporting 4 Aboriginal and Torres Strait Islander students.

NAWO

We're a member of the National Association of Women in Operations (NAWO), an organisation which champions women in operations

Pride in Diversity

We have a partnership with Pride in Diversity who work with us to provide the experience, expertise, support and advice to assist in all aspects of LGBTQI+ inclusion in the workplace.

Australian Network on Disability

We partner with the Australian Network on Disability to become an accessible and disability-inclusive business.

Reconciliation Australia

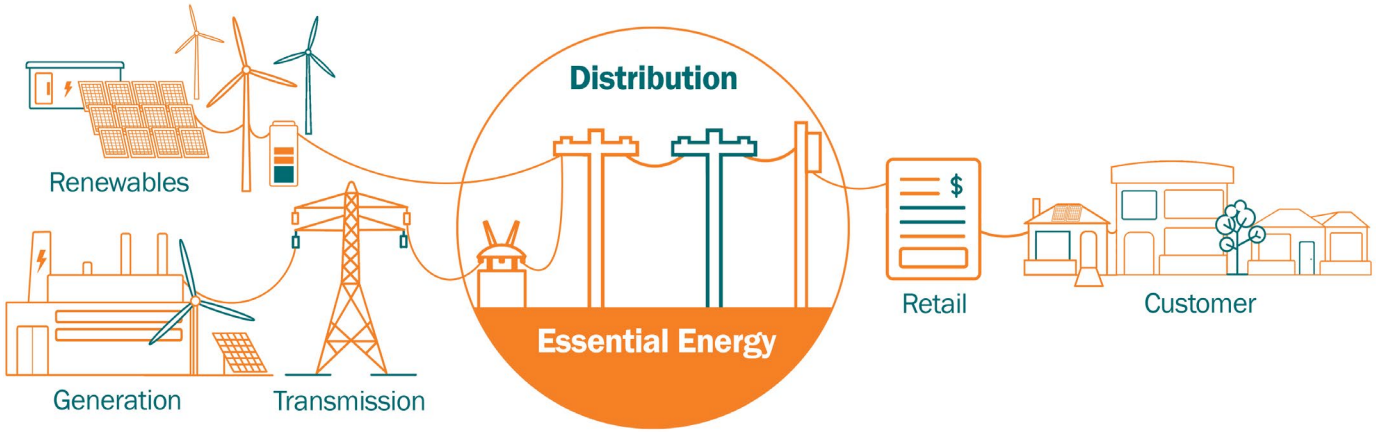
We partner with Reconciliation Australia to take meaningful action and formalise our commitment to reconciliation through our Reconciliation Action Plan (RAP).

Our position in the electricity supply chain

As you review this material, it's important to keep in mind that Essential Energy is only one part of the electricity supply chain that determines how much you pay for power. We take electricity from generators and transmitters and distribute it to you across our operating area on behalf of the retailers that bill you for the power you use.

Our costs comprise about 38 per cent of the total of a typical residential electricity bill. Most customers don't see our network charges as these are paid by retailers that build our costs into how much they charge.

We are one part of an evolving electricity supply chain



How electricity is changing

If you've installed solar panels on your roof, bought a battery for your home, replaced a gas oven with an electric one or started driving an electric vehicle, you will know firsthand how much change is occurring in the way we generate and use electricity.

These trends have profound implications for the way we build and operate our network to ensure it continues to meet customers' needs, while remaining safe, reliable and affordable. We have developed forecasts of customer numbers, consumption and network usage that reflect our network and customer characteristics, and are consistent with AEMO's expectations.

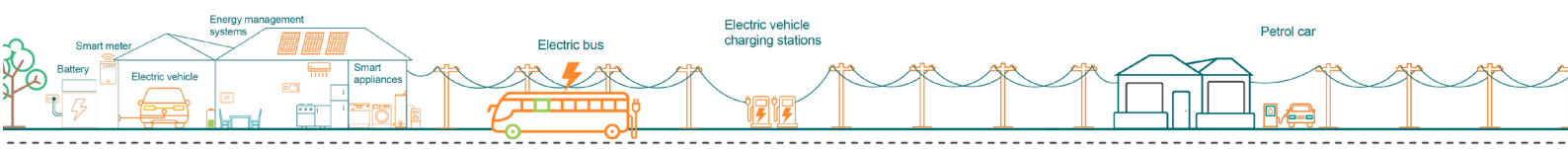
Customer numbers and total consumption

We expect to see our number of customers and their total energy consumption continue to grow slightly from now until 2029, based on technology changes and factors including wider economic and population growth.

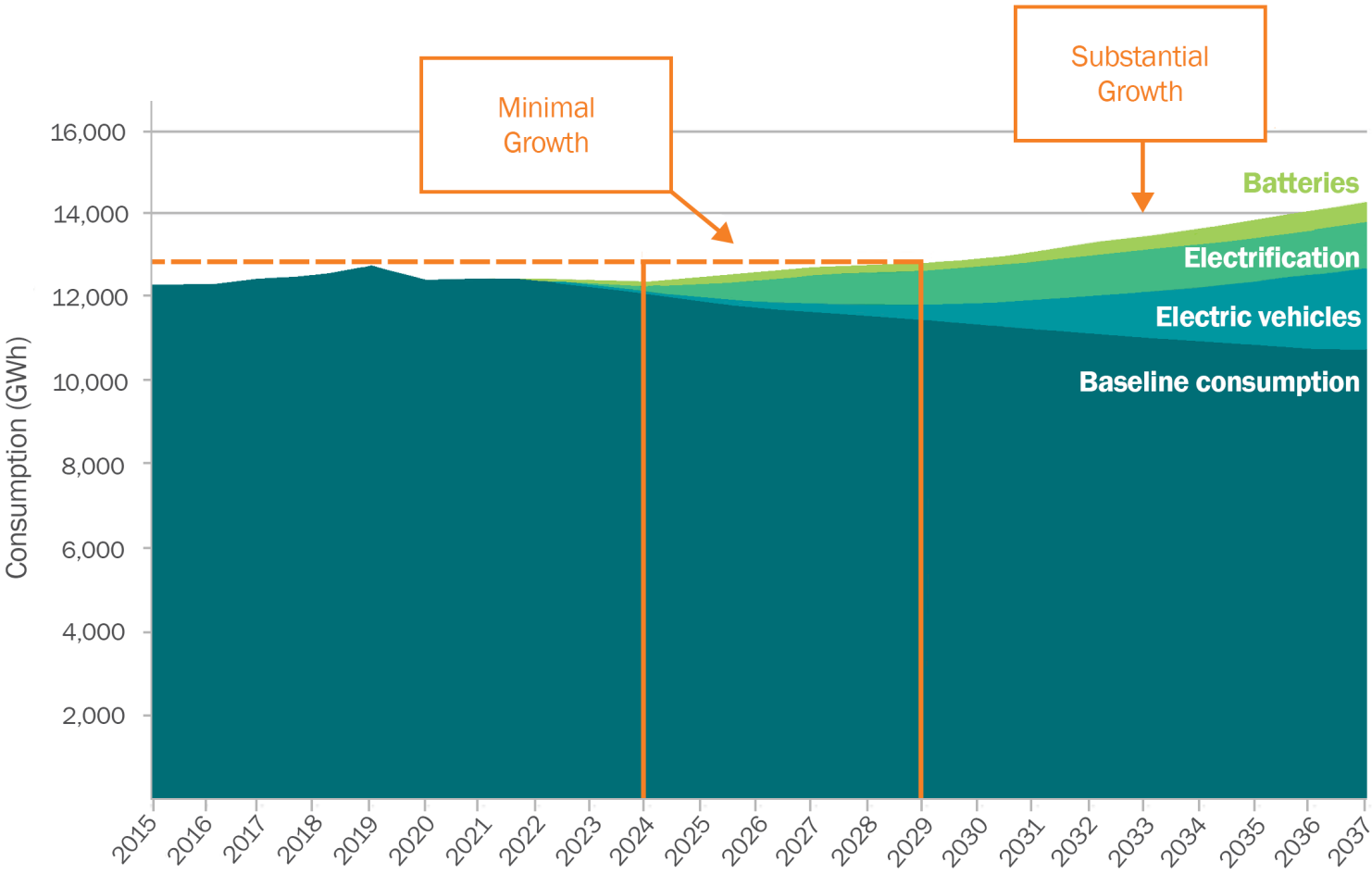
In our Proposal, we forecast our customer numbers will grow by 0.8 per cent a year to reach 926,000 in 2029, and customers' power consumption from the network will grow by 3.9 per cent from 2024 to reach 12,836 gigawatt hours (GWh) in 2029.

Network usage patterns

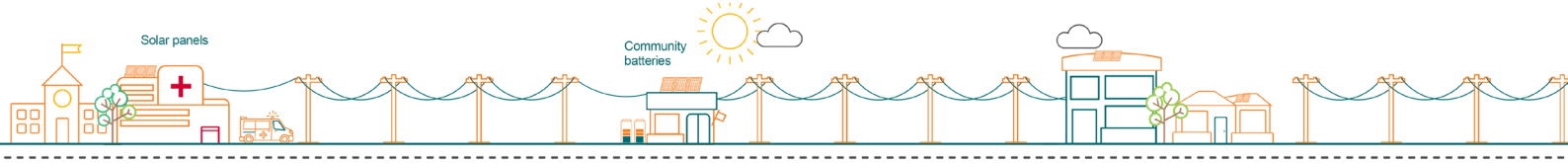
We also expect the way customers consume power to change substantially. For example, we expect you will rely less on baseline electricity from the grid as you install more energy-efficient lighting and solar panels (and export more excess generation). But you will also need more power overall as you drive more EVs and replace gas appliances with electric ones.



Forecast changes to electricity generation and consumption



The rise of solar and battery storage will also see more of you become both power users and generators as you install solar panels and export energy to the grid. This means our network and pricing must be configured to manage periods when you – or other customers – draw the most power from the grid, and when you export more power to the grid than you consume, particularly on mild, sunny days.

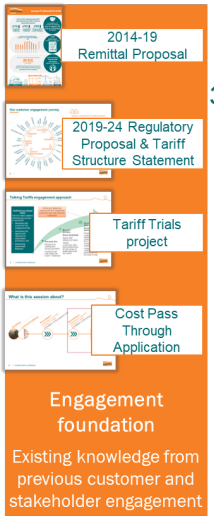


Customer engagement

We developed our Proposal in close collaboration with our customers and stakeholders. It is shaped around your priorities and vision for the future, while also meeting our regulatory obligations and business requirements.

Consultation process

To understand your needs and priorities, and those of our other stakeholders, we engaged in a comprehensive consultation process. This included an intense program of focus groups, interviews, forums, ongoing consultation groups and online surveys. The interviews and forums were conducted with assistance from Woolcott Research & Engagement.



Planning
12 hours of face-to-face engagement
336 hours of customers and stakeholders time
Jul–Aug 2021
A leading edge engagement plan
Know who to engage with, what to engage on, and at what level

Phase 1: Setting the scene
30 hours of face-to-face engagement
1,105 hours of customers and stakeholders time
Oct–Nov 2021
Develop customers' future vision and what's important to them
Informed participants

Phase 2: Understanding our customers
46 hours of face-to-face engagement
2,712 hours of customers and stakeholders time
Feb–Mar 2022
Develop an understanding of customers' views and priorities in relation to the key issues
Highly informed participants

Phase 3: Investment option forums and collaborative deep dives
62 hours of face-to-face engagement
1,792 hours of customers and stakeholders time
May–June 2022
Investment and draft Proposal preferences identified

Phase 4: Testing the draft Proposal
39 hours of face-to-face engagement
1,312 hours of customers and stakeholders time
Sep–Nov 2022
A Regulatory Proposal developed collaboratively and supported by customers and stakeholders
Produce evaluation report

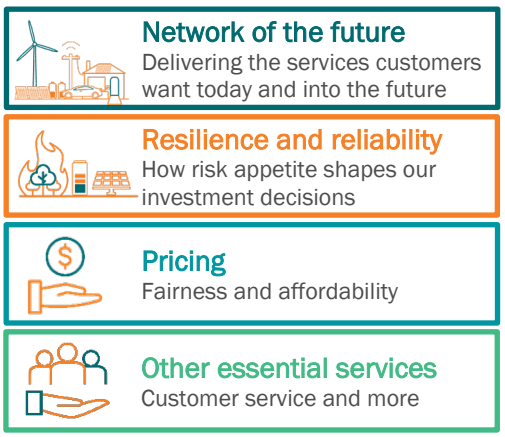
Including the engagement time to co-design our residential and small business customer tariff trials and work with retailers to bring these trials to life, we have undertaken more than 417 hours of face-to-face engagement (or more than 7,800 hours of customers and stakeholders time) to help shape this Proposal.

We have connected with over 360 customers and stakeholders located around regional NSW in each of the four phases of engagement.

As part of our uplift from 2019–24, we expanded our engagement to include a youth group, aggregators, retailers, councils, renewable energy developers, solar installers, new technology providers, critical infrastructure providers and relevant NSW government departments. We also undertook in-depth discussions with culturally and linguistically diverse and Aboriginal and Torres Strait Islander representatives, and conducted a series of dedicated forums and meetings with councils over several months on public lighting.

We shared pre-reading and 'Closing the loop' information through our online Engagement Hub and Virtual Room. In the lead-up to Phases 2 and 4, we ran radio and print campaigns encouraging you to have your say through the Engagement Hub or by phone, email or social media channels.

The themes, shown in the diagram to the right, were developed in collaboration with stakeholders and shaped our engagement program.



Have your say

This engagement process continues with the release of our Proposal and this overview. We encourage you to consider providing feedback on these plans using the contact details on page 5.

Your priorities

We heard that your top priorities are safety, network reliability, service affordability and customer service. You also want us to be future focused and to innovate in ways that encourage – rather than limit – the growth of renewable energy generation and storage.

You also raised new concepts and concerns we have taken on board in our Proposal. One was to add the concept of 'resilience' to reliability to help the network and communities better survive extreme weather and related events like floods and fires. You also felt we needed to add climate change as a specific risk to consider, which we have done.

To that end, you support more investments in composite poles, undergrounding, microgrids, stand-alone power systems (SAPS), generators, portable SAPS, portable solar streetlights, as well as new staff to work with councils, communities and critical infrastructure asset providers to help them develop resilience plans.

Another new idea was to consider the idea of 'collective benefit' and ensure there is a level of fairness in how network costs and benefits are shared between customers.

We listened to your concerns about how quickly Essential Energy's business should adapt for the future – the pace of change was viewed as a delicate balance between improvements to resilience, reliability and power quality, and the impact on electricity bills.

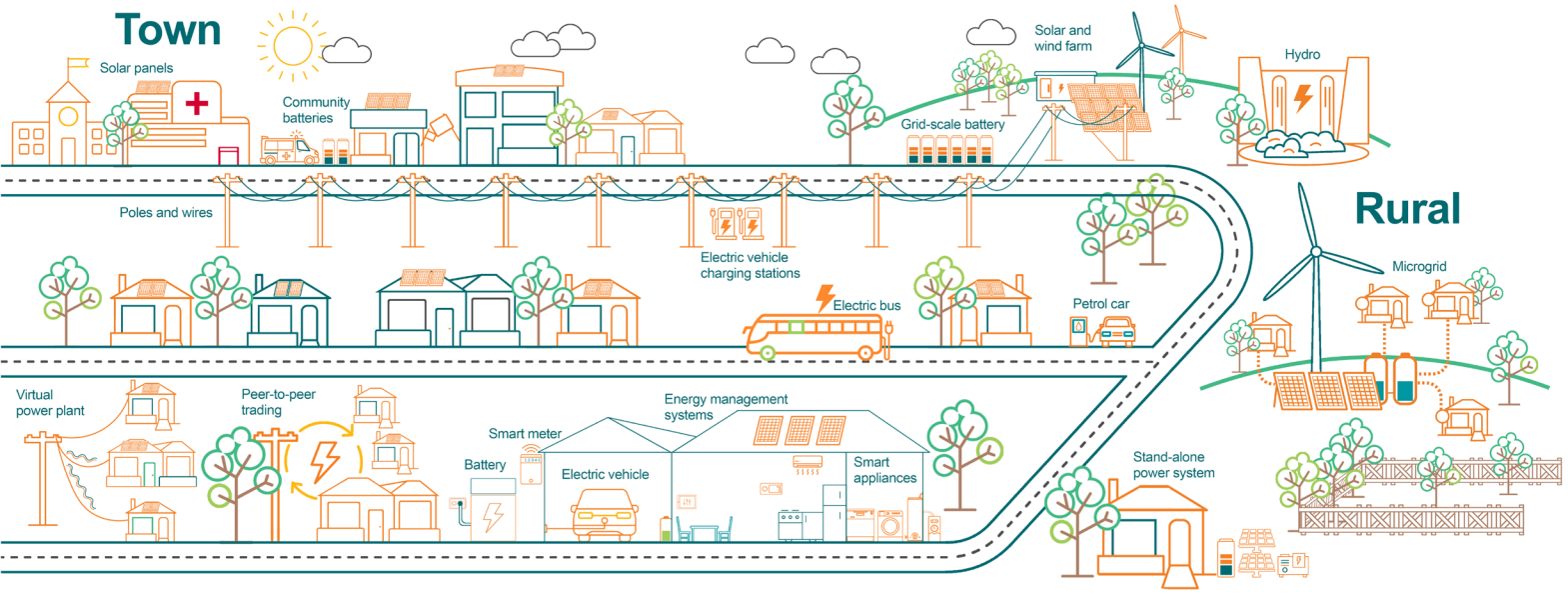
This shift will not be achieved in one regulatory period – instead this Proposal should be seen as a stepping stone to a future that is 10 to 15 years away.

We discuss your priorities and how our Proposal addresses them in the 'Customer outcomes and risks' section on page 19.

Your future network vision

As part of Phase 1 customer engagement, participants created a vision for the future of the network. This vision underpinned the narrative around the need to begin building for the network of the future in the subsequent phases of engagement.

Engagement participants were excited by this vision, but they were keen to ensure that all customers benefitted from these changes, especially those who can least afford, or cannot access, new technologies. Concerns were also raised around the availability of rare minerals required for many new technologies and how the associated waste would be managed in the future.



Funding a network that delivers on your priorities

Revenue requirement

Essential Energy is a regulated business so we estimate how much revenue we will need to generate to cover costs, invest for the future and provide a reasonable return to our shareholder, the NSW Government. The AER assesses whether our proposed revenue is appropriate.

Over the past decade, we have transformed our business to reduce our costs. We have achieved this by investing in new information technology and the associated streamlining of our operations and processes, and by improving how we manage our assets.

Our Proposal builds on this foundation to deliver on our customers' priorities and future network vision by:

- making our network more resilient to the impact of climate change
- supporting changes in the way energy is sourced and shared
- enabling greater levels of renewables to connect.

The revenue requirement outlined in our 2024–29 Proposal is $5.9 billion over the five years, compared to $5.7 billion expected over the 2019–24 regulatory period. The most significant difference between these periods is the result of higher levels of inflation – Essential Energy's regulated asset base (RAB) is indexed so higher levels of inflation mean a higher RAB and an increased return on that capital. The return on capital item has increased $269M (10%) between the two regulatory periods. Operating expenditure (opex) has also increased due to expectations of higher wages, accounting changes to reflect more cloud computing costs in opex, as well as extra spending to enable more consumer energy resources (CER) on our network and higher insurance premiums. However, there have also been offsetting reductions in revenue adjustments, due to forecast penalties we will incur for spending above allowances during the 2019–24 period.

The proposed revenue reflects capital expenditure (capex) (including the cost of replacing old assets), opex (including the cost of maintaining assets) and the associated costs to fund those investments. This revenue will enable us to operate and maintain a safe, reliable, and efficient network and begin to future-proof the network to meet customers' needs.

The average proposed rate of return using recent placeholder interest rates is 5.65 per cent over the 2024–29 regulatory period. This has increased from our Draft Proposal which was prepared using older (lower) interest rates. Inflation has also increased since then. Changes in interest rates and inflation affect our business like they affect many of our customers. The AER will ultimately update these values to reflect rates at the time that they make their 2024–29 Determination for us (in 2024) – this means that the revenue requirement in the Determination will already change from what we are using in currently this Proposal.

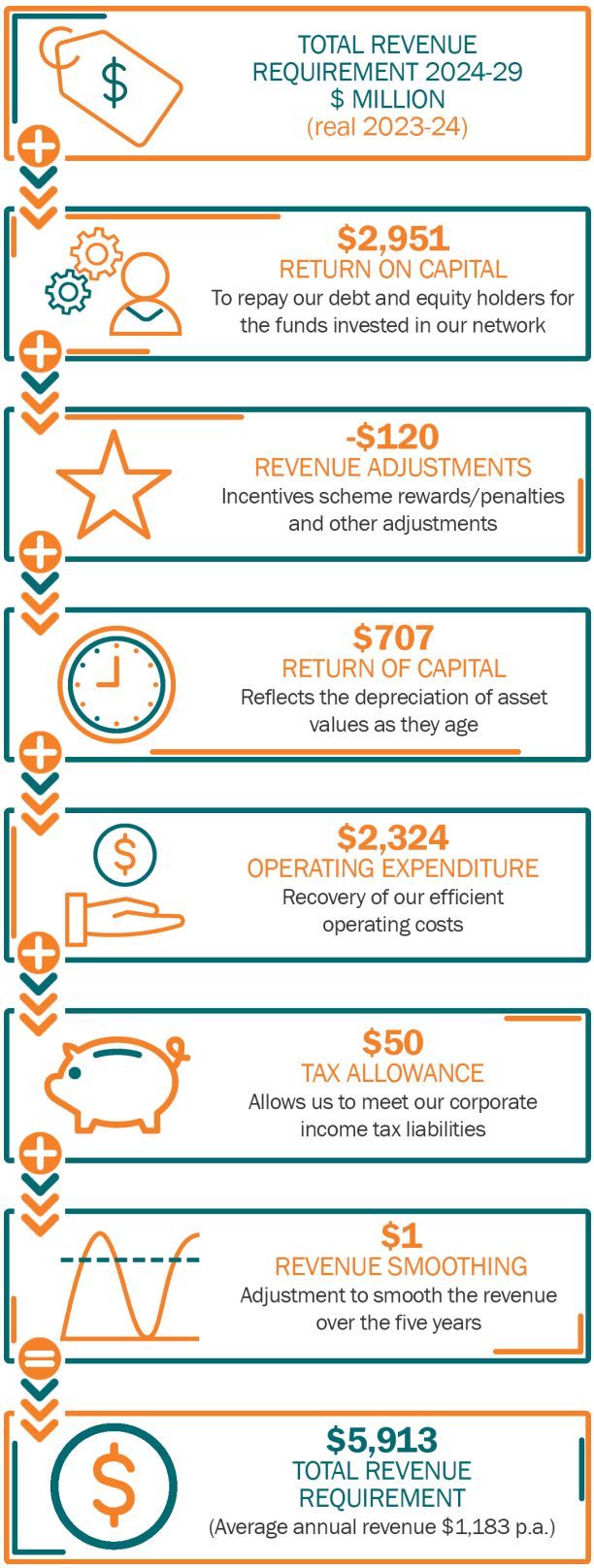
2019-24

OPEX	CAPEX
$2,237 M	$2,572 M

Investments reflecting your priorities
(real $ 2023–24)

2024-29

OPEX	CAPEX
$2,296 M	$2,696 M

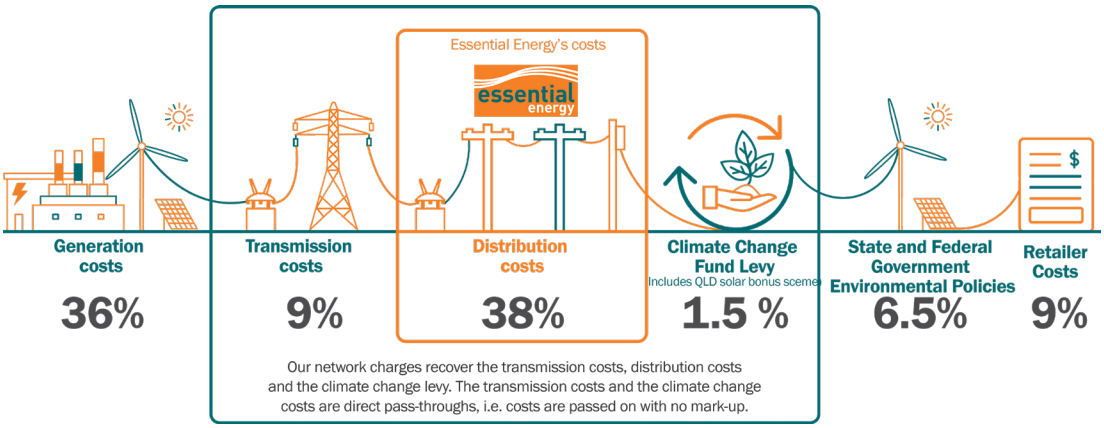


How we recover our costs

We are an electricity distributor, so our prices are just one part of your total bill. The costs we recover through our distribution tariffs represent our costs to operate and maintain the distribution network. Your bills show our network charges bundled with:

- transmission costs, which are regulated by the AER. These costs are passed on by Transgrid and Powerlink, the operators of the transmission networks that our distribution network connects to
- the NSW Government's Climate Change Fund levy and contributions to the Queensland Government's Solar Bonus Scheme.

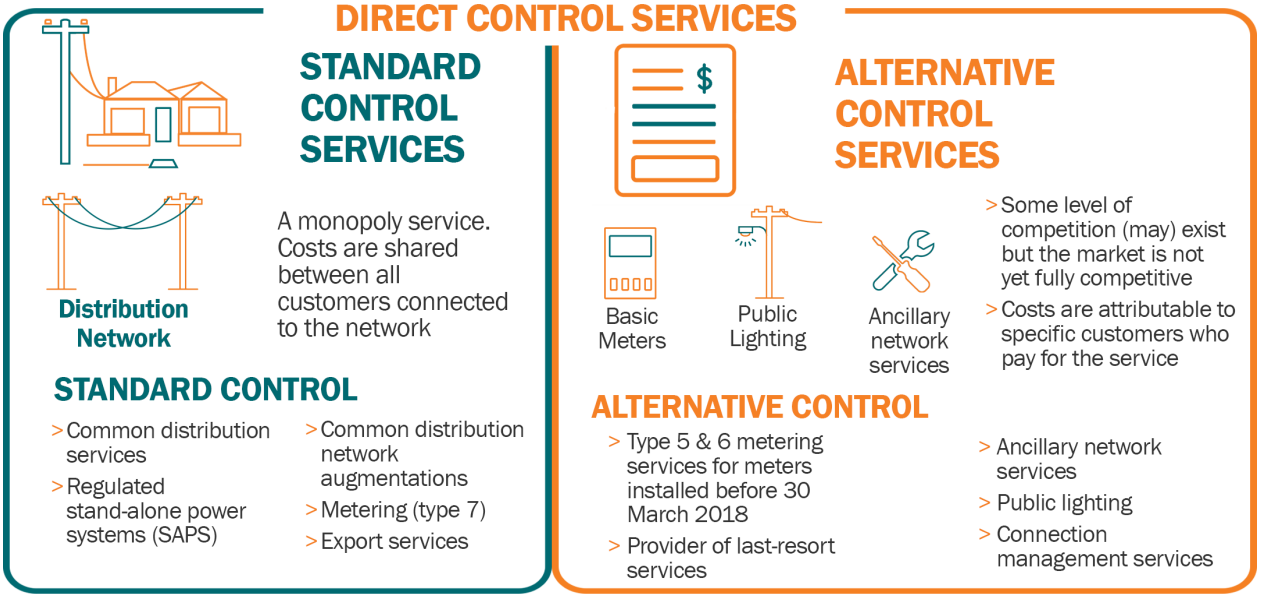
In the future, there will also be contributions to the costs of the NSW Electricity Infrastructure Roadmap and for the anticipated NSW Green Hydrogen Exemption Scheme.



Based on the 2021–22 forecast, Australian Energy Market Commission, *Residential Electricity Price Trends 2021*, 25 November 2021 p. 10. Note that recent energy market conditions may significantly alter these percentages in the future – over time generation costs are likely to make up a higher share of your bill and other components will be lower.

Services covered by our TSS

Our TSS covers charges for services that are classified as Direct Control Services under the National Electricity Rules (NER) that govern our industry. The AER further classifies Direct Control Services as either Standard Control Services, which covers our services that multiple customers benefit from, and Alternative Control Services, which are the services we perform for specific customers.



While the TSS covers the structure of charges for both types of service, this Overview focuses on Standard Control Services, as they impact all our customers through the electricity network charges that they pay. We do include some information on our proposed Alternative Control Services in the last section of this document.

How the AER regulates our network charges

The National Electricity Rules (NER) require Essential Energy to move towards more cost-reflective network charges – that is, charges that align with the costs imposed on our network.

Our Proposal includes our proposed expenditure forecast for building and maintaining our network and a network charging structure to fund operations for the 2024–29 regulatory period. The charging structure is an important part of the overall Proposal. When the AER assesses our Proposal, they will approve expenditure that it considers to be efficient and prudent, and a revenue allowance for each year of the regulatory period. It also reviews and approves the charging structures in our TSS.

The electricity industry is dynamic, and circumstances can change quickly. While our TSS outlines the structures and assignment policies for our proposed network charges, actual network charges are reviewed and approved each year by the AER when we submit our annual pricing proposal.

Cost-reflective network charges

The electricity industry is in a period of transition, driven by changes in the way our customers source and use energy, the push to decarbonise our energy supply, and increased decentralisation of the energy supply chain.

As these changes occur, we expect to have a mix of active customers who invest in new technologies and change their energy sourcing and usage behaviours, and passive customers who continue to use energy in much the same way as they do today.

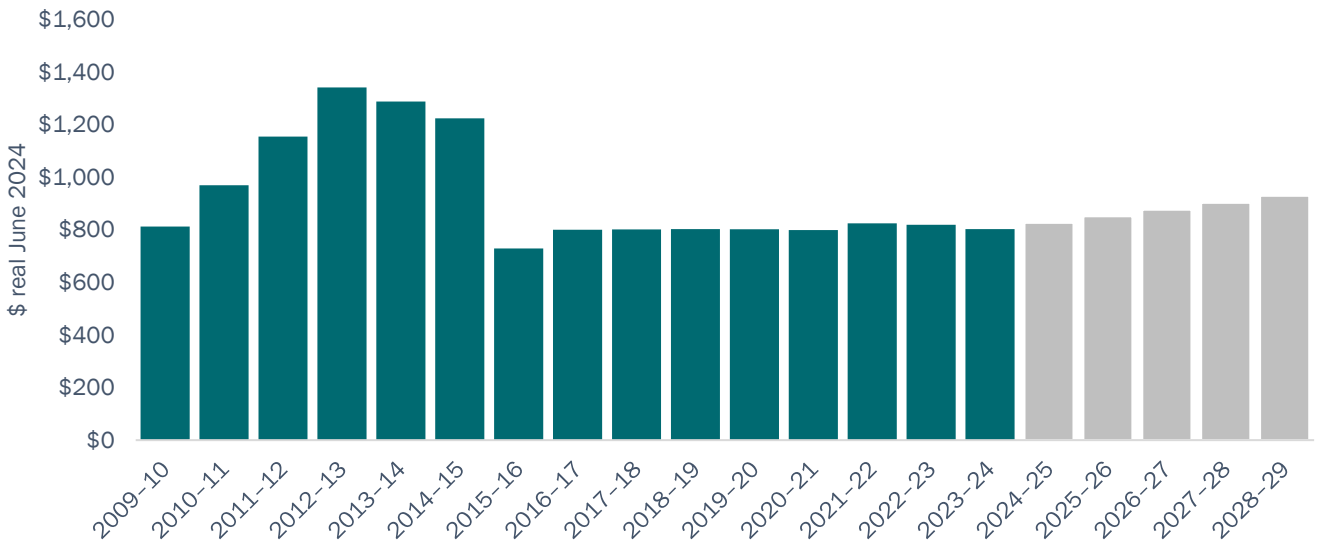
We need to ensure that our network charging structures are fit- for-purpose for all customer types so we can best support your long-term interests. This means designing charges that recognise the characteristics of our network and your needs, now and into the future.

Cost-reflective network charges provide all customers with greater visibility of how usage impacts the costs of operating the network. It also allows you to alter your consumption or export behaviour in return for lower network charges.

Indicative changes to our network charges

We propose real average annual increases to the cost of using the distribution network (the network charge) in your electricity bills by 2.97 per cent for the 2024–29 regulatory period, based on recent placeholder interest and inflation rates. This will increase the average customer retail bill by around 1.13 per cent in real terms, assuming no other changes. Our Draft Proposal included real decreases in network charges but that was before recent interest rate and inflation changes were incorporated.

Annual distribution network bill for a typical residential customer using 5 MWh a year



Our guiding principles for tariff design and two-way tariff transition

Our pricing approach is based on the pricing principles we co-designed with our customers to provide a framework for Essential Energy's transition to cost-reflective two-way pricing. These guiding principles are shown on the right.

Pricing for the future

Our pricing structures need to evolve to keep pace with the changing energy market, particularly the increasing volume of CER connected to and exporting into the network. It also considers the feedback from our extensive customer and stakeholder engagement program.

Pricing structures that better reflect the costs of providing two-way network services to customers, help encourage customers to use the network in a more efficient way. This in turn helps us to operate and invest in the network more efficiently – assisting in reducing the long-term average network prices you pay.

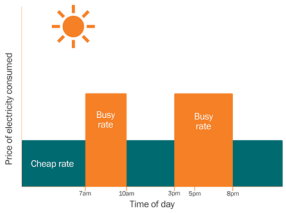
The guiding principles we follow to set our prices

Principle	What this means
Avoid bill shock	Tariffs minimise the risk of bill shock for customers (especially vulnerable customers)
Easy to understand	Tariffs are relatively simple to interpret
Fair	Customers pay their fair share of network costs (cost-reflective)
Integrate renewables and new technologies	Tariffs accommodate changing technology, energy flows and greener customer choices
Effective	Tariffs do the job - they solve network issues and don't create new ones

You can find more information on our proposed pricing plans, including our transition to two-way pricing for the 2024–29 period, in **Chapter 12** of our Proposal and in **Attachment 12.01 - Tariff Structure Statement**.

The main changes we propose for 2024–29

Introduce the Sun Soaker



We will continue the transition that involves moving customers with smart meters onto time of use tariffs to enable them, and us, to save money through energy use at times of excess system capacity.

Going forward, we want to maximise how many customers can access our new Sun Soaker consumption tariff to help use up excess renewable solar energy generated during the middle of the day.

Our Sun Soaker tariff will be available from 1 July 2024 if you have an interval or smart meter.

Start our transition to two-way pricing


Consumption from the grid


Exports to the grid

We can use prices to reflect the demands on our network at any time. Using prices to inform customer's electricity usage and export timing decisions, is cheaper than increasing our investment in the network.

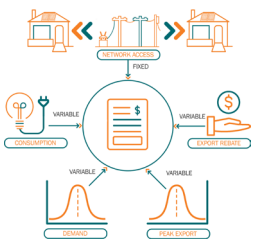
Faced with new cost drivers from peak exports – as well as our existing peak demand cost driver – transitioning to two-way pricing has become increasingly important.

This transition and encouraging customers to use more energy in the daily solar peak period, will help reduce overall network costs and prices, and ensure customers pay fairly for using the network.

Our transition to two-way prices will start from 1 July 2025 for new customers or those connecting energy resources.

All remaining customers who have an interval or smart meter will transition when our new billing capabilities are in place - no later than 1 July 2028. At that time, our low voltage demand tariffs will also have an export charge and rebate added to them.

Application of network charges



During the 2024–29 period, we will continue our transition to cost-reflective pricing. We expect the pace of this transition to be supported by policy reforms requiring retailers to speed up their smart meter roll-out.

This is reflected in our proposed tariff structures and default tariff assignments. Most residential and small business customers can continue to choose a different tariff to the default tariff by requesting this through their retailer.

We have retained a choice of tariffs for customers who have an interval or smart meter. Given the industry's desire to move to cost-reflective prices, we have removed the ability for customers to opt-out to a flat rate network charge or our traditional time of use network charge.

Customer outcomes and risks

This section illustrates how our Proposal and TSS will deliver outcomes in areas that are critical to the operation of our business and meet your priorities. It also highlights some of the risks to those outcomes not being achieved.

All electricity networks pose safety risks. Some of the most obvious ones are electrocution (of a member of the public or an Essential Energy worker), property damage or the potential for electrical fires. In a dry spell, powerlines can spark bushfires, and power outages at any time can pose serious health risks. For example, people who depend on respirators and other medical equipment rely on stable energy supplies.

Major weather events as a result of climate change require an even higher level of safety focus.

To ensure our network remains as safe as possible, our Proposal includes:

- modelling risks in a 'top-down' and 'bottom-up' way to decide the optimum level of network investment to balance safety and efficiency goals
- continuing our work with vegetation contractors to improve the vegetation clearances
- improving our field data to enable leading safety indicators, identify trends and ensure on-site safety

The main risk to achieving our safety objectives is that ultimately, there is a limit on how much we can invest.

We are acutely aware that electricity is a significant cost for many customers and we must strive to minimise our prices, while ensuring our network remains safe, reliable and fit for purpose now and into the future. Much of our Proposal is designed to achieve these goals. Under our strategy, we:

- propose real average annual increases in the distribution component of customers' electricity bills of 2.97 per cent in 2024–29, noting that this rate will not be settled until our final Determination by the AER in 2024
- in our Draft proposal we had proposed a real annual decrease of 1.23 per cent in network charges across 2024–29 using placeholder rates from earlier in 2023 – if interest and inflation rates had remained at those levels, we would have been able to propose a small decrease of 0.09 per cent in this Proposal.

Specific measures to maintain or improve affordability include:

- better utilising existing network resources by introducing two-way pricing to reward customers for using more electricity during peak solar export times in the middle of the day, and encouraging them to avoid exporting electricity (from solar panels or batteries) during that same peak time
- introducing regulated SAPS and microgrids to complement our network solutions, improve resilience and place downward pressure on costs
- investing in solar panels for up to 20 depots and moving a portion of our light and heavy fleet vehicles to EVs where it is cost effective to do so

We also want you to understand that the prices and financials shown in our Proposal and TSS are based on recent placeholder interest and inflation rates, as required by the AER. However, customers should be aware that changes in these rates through to 2024 will also change network charges. In addition, other factors outside of our control, such as costs from other participants in the electricity supply chain, can also impact your retail bill.

Reliability and resilience

Maintain a consistent supply, plan for and respond quickly to extreme weather events

The level of reliability you experience may vary according to where you live. Climate-related threats and natural hazards, such as storms, floods and fires, can also have a major impact on reliability.

Reliability

To meet our network performance (reliability) goals, we:

- procure and install assets where they are expected to meet minimum standards of reliability
- routinely inspect, maintain and, where necessary, replace our assets
- review unplanned supply interruptions and reliability issues for patterns and trends
- spend much of our direct operating expenditure on managing vegetation, conducting routine inspections, and completing maintenance works.

We heard that you are generally comfortable with the current levels of reliability we provide and we should aim to maintain these levels. However, we should also continue to invest in programs to improve outcomes in areas of the network with the worst levels of reliability. In our Proposal we include expenditure to address both of these requested outcomes.

Resilience

Following the recent storms, floods and bushfires across NSW and parts of Queensland, you have – quite understandably – become more concerned about the resilience of our network and of your communities as a whole.

We are continually exploring ways to enhance our network's resilience and we are developing a new Resilience Framework to help decide where to act. You told us that we needed to focus more on strengthening the network. You thought it was important to assist communities, but strengthening the network would have a better impact on resilience.

Our Proposal lists practical measures to enhance resilience. We plan to:

- install composite poles that can withstand significant heat and fire damage from bushfires, with the aim of replacing an additional 11,000 poles in high-risk areas by 2029. Customers had preferred higher levels (we included 15,000 in our Draft Proposal) but we have needed to reduce this to reflect that we will only install them in locations where it is clearly cost efficient to do so.
- proactively roll-out up to 400 SAPS at identified high-risk sites to improve reliability and decrease customer bills
- commission microgrids at up to six sites over the 2024–29 period, initially targeting long lines in high-risk areas with the highest benefit. In our Draft Proposal we included seven sites, but we now expect to deliver one of these early (in 2019–24).
- install solar and battery backups at key radio sites to improve our ability to restore service to customers
- buy portable and adaptable assets, such as mobile switchboards and multi-winding transformers, to speed up restoration of service to customers following large events that affect zone substation assets
- underground up to 40 km of powerlines in high-risk locations to minimise exposure to bushfires and storms
- invest in portable community assets such as lighting, a community hub, depot, solar panels, batteries and generators to support community resilience as and when needed.

We intend to progress on these initiatives in accordance with the timeframes preferred by customers. But there are risks in deliverability, particularly for SAPS and composite poles, given the small number of suppliers of these new technologies. We are also using these programs to assist with developing markets for these products and supporting local businesses where possible.

Power quality reflects how well our network is operating within its safe technical limits and voltage levels. We need to maintain the right voltage range on our network to ensure that lights and electrical appliances operate properly.

We have always had to manage power quality and the most efficient response to challenges – such as the growth of air-conditioning units – has previously been to manually adjust the settings of our assets in response to customer complaints in specific locations. However, the increasing take-up of solar panels and the impending use of batteries and EVs means power quality issues are now much more common across the whole network, as customers want and need to export excess generation.

A key message from our engagement with you is that you want to see Essential Energy look forward to the future and play an innovative role in enabling Australia to transition to new ways of generating, storing, distributing and using electrical energy. For example, the traditional response to managing the impact of high rates of rooftop solar on the network has been to limit how much customers can export. You told us that this didn't align with your expectations, worked against Australia's climate commitments and was not sustainable as more CER are added to the network. In addition to limiting exports to resolve increasing power quality issues, we also considered augmenting the network (more poles, wires, new cables) - but that is not the best long term solution for customers.

Our Proposal embraces your vision for the future and includes the following range of initiatives to increase the volume of CER connected to and exporting into the network, including:

- introducing real-time monitoring – new software to manage and interpret data (from smart meters and network sensors) about what is happening at a local level on the network
- flexible export limits that will result in customers being able to export more of their excess generation – aligned to our new flexible connection agreements
- installing dynamic assets – such as batteries and smart transformers – that can respond to information from real-time monitoring and automatically adjust voltage on the network
- redefining our core electricity distribution services to include the delivery of electricity from the grid to customer premises (import services) and the delivery of excess on-site electricity generation to the grid from solar panels or batteries (export services) to allow for two-way pricing and reflect changes to the National Electricity Rules
- introducing two-way pricing to better maintain a close alignment between real network usage and costs, and encourage efficient usage patterns
- exploring solutions and partnerships that will allow for greater levels of consumer energy generation on the network, and new markets to develop (such as selling excess generation to third parties), while retaining safety, reliability and customer choice
- ensuring we have the right capability to support the adoption of EVs and increased electrification, and to encourage beneficial behaviour.

Across 2019–24, we expect to spend around $36 million in capex on measures that assist in enabling more CER generation to be integrated via our distribution network. In 2024–29 we propose to increase this to $91 million, with the increase mainly due to proactive investments in real-time monitoring and dynamic assets, rather than on reactive work for power quality issues.

These innovations will enable us to deliver more cost-effective, convenient and useful solutions for you. However, there is a risk that not all customers will be able to access the new technologies required to realise these benefits. The roll-out of smart meters is a key dependency as well as customers being able to understand how to best utilise their CER with two-way pricing.

Our Future Network Strategy will enable emission reductions as less energy is needed to be sourced from fossil fuels and is replaced by renewable energy. Over the 2024–29 regulatory period we anticipate carbon emission reductions of around 147,000 (tonnes CO^2-e), with more to come in the future. By installing solar panels on some of our properties and replacing some of our fleet with EVs, we are also decreasing our carbon footprint. We estimate that over 2024–29 this will lead to emission reductions of 15,700 tonnes of CO^2 equivalent – as well as lower electricity bills.

Good customer service and communication

Be easy to deal with and keep customers informed

Through the engagement process and other feedback, we have heard that you value quality service, timely communications and transparency about services and network charges. You are particularly keen for us to improve unplanned outage notifications and said that good customer service involves clear and simple communication, via multiple channels.

Our Proposal includes a range of measures to deliver on these expectations, including a Customer Service Incentive Scheme (CSIS) that replaces the telephone answering service standard within the Service Target Performance Incentive Scheme. This includes three new customer service metrics to track:

- the percentage of unplanned outages where we provide an estimated time to restore services
- the average number of days to resolve complaints
- customer ease, as measured via quarterly and post-interaction customer surveys.

We will track these metrics and re-engage with customers to ensure that these new measures will deliver the service they want. The results of the trial will also be used as a base for setting the CSIS targets for 2024–29.

We heard that collective benefit or equity was important to you. The diversity of ways that customers will interact with the grid in the future, means we must be able to cater for individual needs – responding in a fair and inclusive way, while also focusing on the collective good. One way we will try to do this is to make pricing fairer by transitioning to more cost-reflective pricing, including two-way prices.

Collective benefit

Cater to the diversity of customer needs in a fair and inclusive way for all

Transparency and simplicity

Make managing electricity clear and simple so customers feel empowered to make informed choices

You told us that making things clear and simple to understand was a priority, so that you feel empowered to make informed choices. To help with this we are:

- proposing to invest in a new customer relationship management system that aims to include an integrated ‘one-stop’ customer portal to provide you with better services and information
- committing to undertake extensive customer education around smart meters, tariffs and the introduction of two-way prices.